



Whitby Sports Complex – Final Design Presentation

27 February 2023

Agenda

- 1. Introduction**
- 2. Listening to Council, Staff and Community Input**
- 3. Design Concept**
- 4. Discussion**

Introduction

Introduction — Perkins & Will Team



Phil Fenech
Principal in Charge



Andrew Frontini
Lead Designer



Philip O'Sullivan
Project Manager



Michael Blois
Project Architect



Anna Beznogova
Sustainability Lead

AQUATICS
Jamie Lopes

REFRIGERATION
Andrew Epp

<p>Structural — RJC</p> <p>Brent Lodge Principal in Charge, Structural Engineer</p>	<p>Civil — Husson</p> <p>David Sharp Civil Lead</p>	<p>MEP — Smith + Andersen</p> <p>James Back Electrical Engineer</p> <p>Brad Bull Mechanical Engineer</p> <p>Vaughn Wilson IT</p> <p>Dustin Su Audio Visual</p>	<p>Cost — A.W. Hooker</p> <p>David Montgomery Electrical</p> <p>Greg Babiak Mechanical</p> <p>Stewart Kyle Architectural</p>
<p>Vertical Transportation — Soberman Eng.</p> <p>Jonathan Soberman President, Vertical Transportation</p>	<p>Building Envelope — ZEC</p> <p>Vera Zec Director, Building Envelope</p>		<p>Acoustics — Swallow</p> <p>Michael J. Wesolowsky Principal, Acoustics</p>
<p>Wayfinding — Suria Design Studio</p> <p>Daniel Suria Principal, Wayfinding</p>	<p>Hardware — Spyder SC</p> <p>Cameron Gibson Hardware Consultant</p>		
<p>Transportation — JD Eng.</p> <p>John Northcote Sr. Transportation Engineer</p>	<p>Commissioning — CFMS</p> <p>Jurij Dziuba Project Manager</p>	<p>Code — Code Next</p> <p>Jeffrey Lam Project Manager</p>	<p>Landscape — MBTW</p> <p>Jon Joyce Senior Landscape Architect</p>

RINK PROGRAMMING
Michael Harvey
PROGRAM NEEDS ANALYSIS
Jon Hack

A Shared History



A Shared History



Brooklin Community Centre and Lib

Town of Whitby

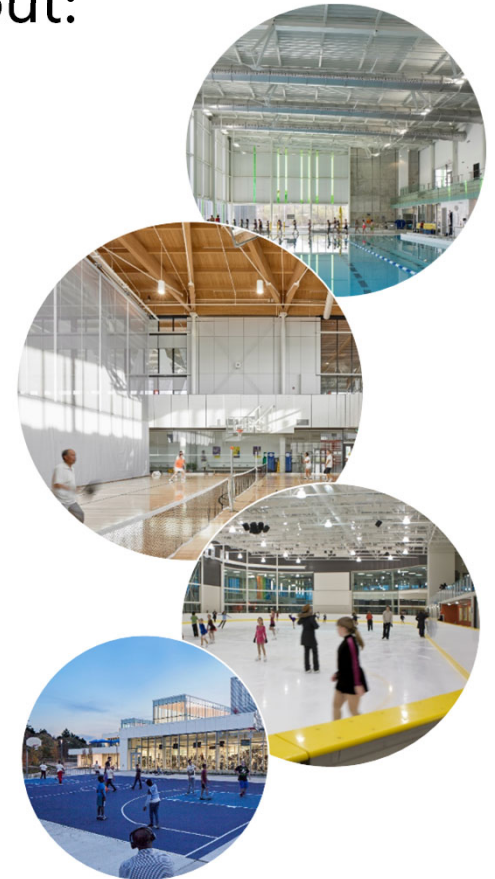
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Listening to Council, Staff and Community Input

Community Input

The design incorporates community program input:

- 115 request (32%) from the community engagement session identified outdoor amenities such as **outdoor sports fields, courts, gardens, playgrounds, bike/skate pump track, trails and plaza programming**
- 224 written requests (21%) for **indoor gymnasium space** [pickleball, badminton, volleyball, basketball, indoor fieldhouse activities and large meeting events]
- 125 written requests (12%) for aquatics amenities including **increased pool size, second floor viewing area and adequate change room facilities**
- **Future expansion potential for indoor program.** Numerous requests for an indoor fieldhouse, multi-purpose spaces and for additional indoor recreation space
- **Council directed staff to adjust program based on community input**



Key Design Principles

Accessibility : a seamless and dignified experience for everyone

Flexibility : ability to utilize in many ways

Advanced Programing : anticipating trends in service and programs

Inclusivity : open to all cultures and gender identification

Durability : enduring materials and systems

Sustainability : advanced energy and environmental performance

Area and Program Summary

159,000 sq ft [14,800 m2]



Aquatics

Leisure Pool
10 lane x 25 m
pool
Family &
Gendered change
Pool Gallery



Gymnasium

94' NBA court
Volleyball court
2 cross courts
basketball & volleyball
6 badminton &
pickleball courts
Bleacher seating



Track

Walking Track
above gym



Rink

Two Rinks
Change rooms
Warm and cold
seating



Multipurpose

Aquatics MP room
Two meeting
rooms
Arts & Culture
Room
Warm viewing/MP
Room

Area and Program Summary (PARK)

. 12.0 Acre [4.86 Hectare]



Multi-Use Field

Approx
60m x 100m
Bleacher seating



Event Plaza

Adjacent to building
Flexible space
Markets
Camps



Playground

1100 sm
4 interactive
zones
Skate Park
110 m long track
+ bowl



Tennis /Pickleball

3 Tennis
14 Pickleball



Basketball

3 courts

Sustainability

The only ZCB and LEED Gold project registered with CAGBC that includes arena, gym and aquatics!



District Energy System

Geothermal district energy plant supports Sports Complex. Eliminates fossil fuel use for heating.



Advanced building envelope and systems

Increased insulation and advanced envelope design
Distribution of latent heat from Ice plant.



Habitat Restoration

Reinvest land with native plant species, wetlands, and low impact storm water management.



On site Renewable Energy

Partially powered by 300Kw/hr roof top PV array



Local and Regional Transit

Connections to regional commuter bus station

Design Concept

Project Vision

Future Recreational Trail

A convergence of recreation and culture

Heber Down Conservation

WHITBY SC SITE

HYDRO CORRIDOR

ASHBURN RD

BALDWIN ST

Whitby's Arts Trail

Brooklin Memorial Park

CORON

Project Vision

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Whitby SC Site

Brooklin Memorial Park

Hydro Corridor

Whitby's Arts Trail

ASHBURN RD

BALDWIN ST

CORONATION RD

407

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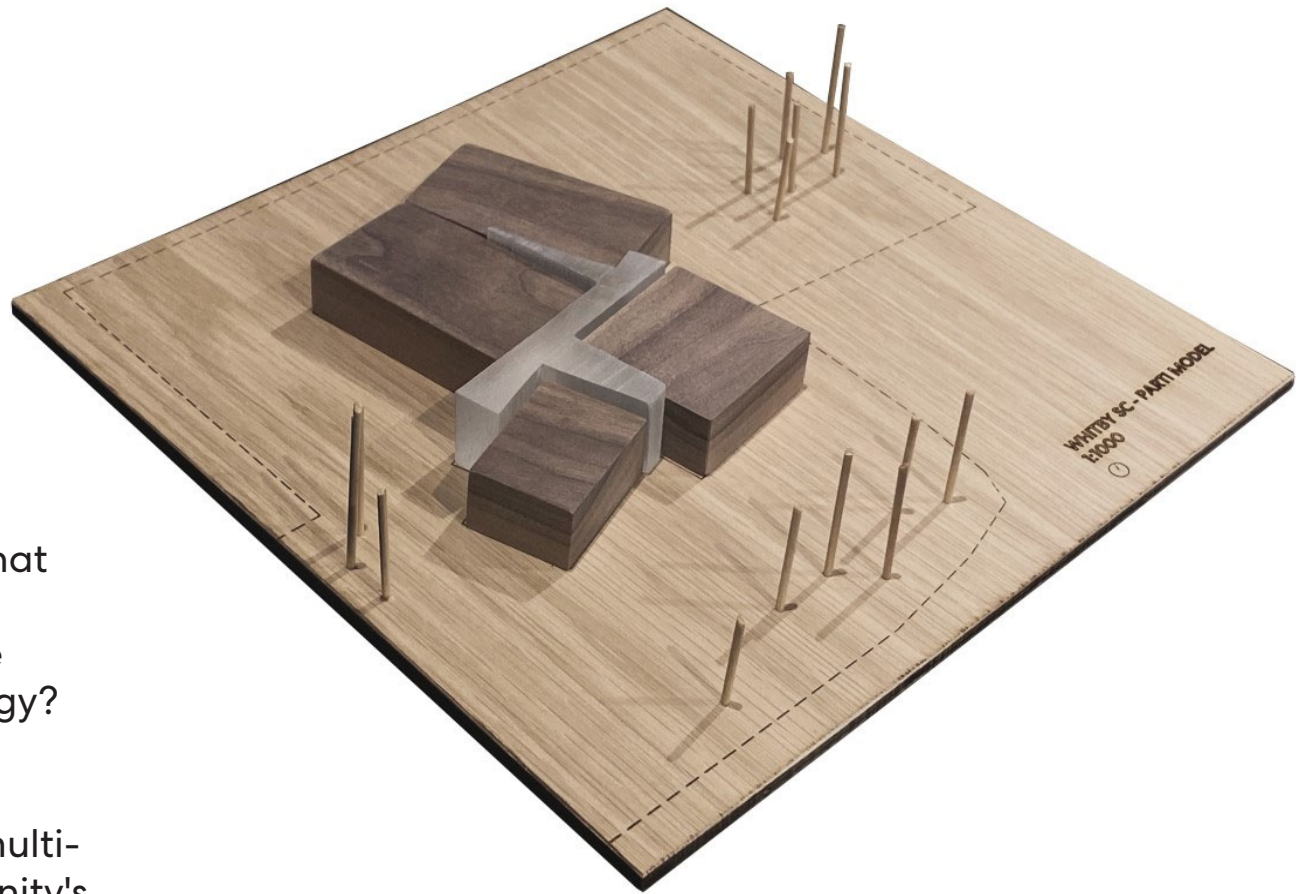
Ashburn Rd

Baldwin St

Coronation Rd

407

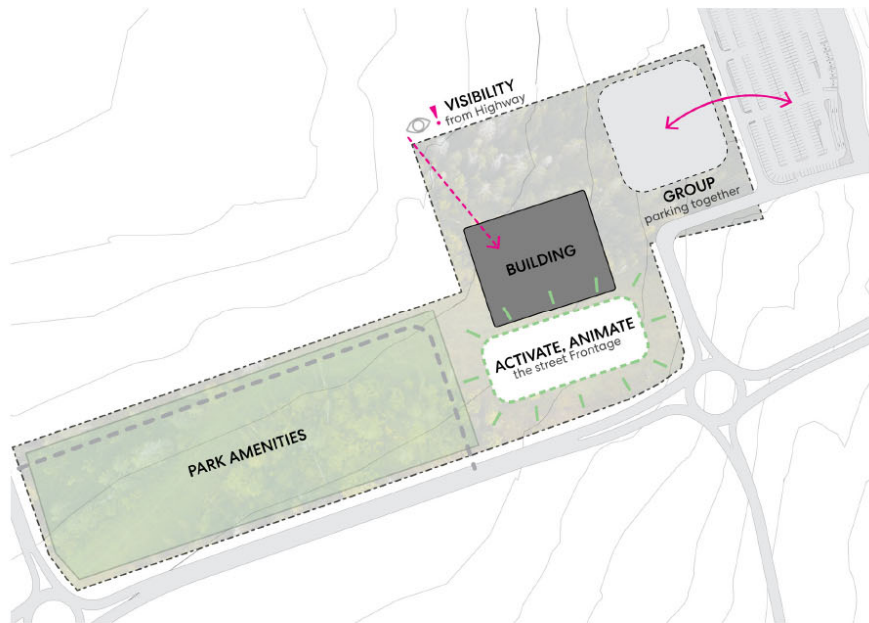
Project Design Vision



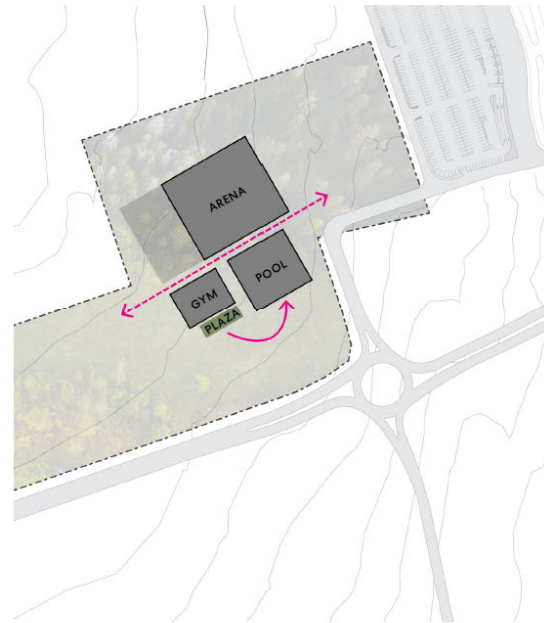
Glacial Ice shaped the landscapes that we navigate and inhabit. Can we reinvest a site stripped bare with the spirit and drama of the native ecology?

Within a re-imagined landscape of sustainability and inclusion, a new multi-use facility creates reflects a community's desires for gathering and celebrating

Design Rationale



Position the building in an optimal location that best mediates between both sides of the site



Rotate and Connect the building to establish a clear bridge the two sides of the site



Expand the entry points and public zones for a richer community experience.

Concept / Evolution of a Landscape



Clearing



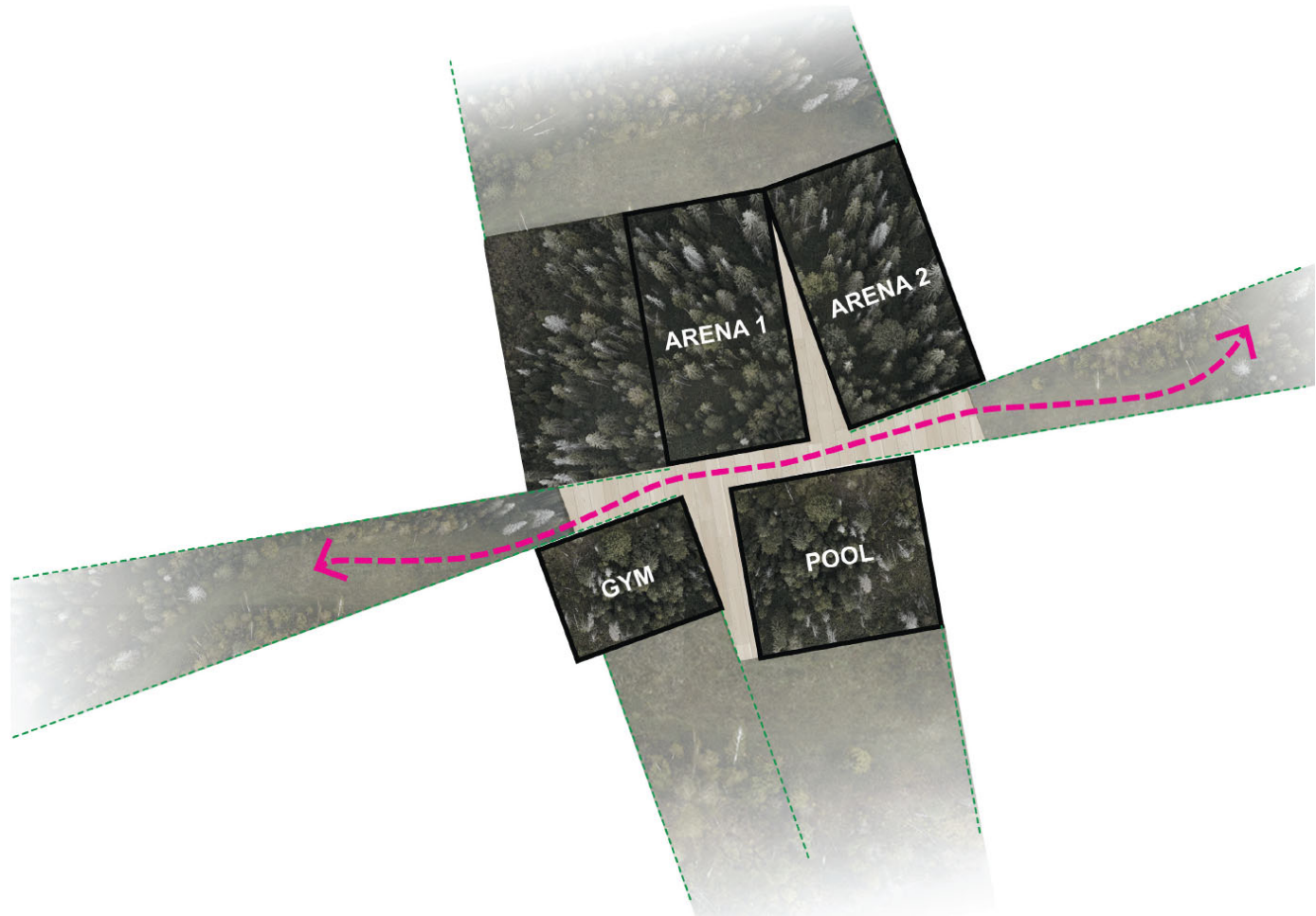
Forest



Connectors

The design of the North Whitby Sports Complex evokes the indigenous landscape of Durham County - one which has been erased from the immediate site. The concept draws inspiration from the surrounding natural features and their formation over time through three stages:

- ❶ Glacial Ice shaped the landscape that we now move through, carving valleys and depositing till into mounds.
- ❷ Forests thrived on the soft soil deposits on either side the rocky valleys and stream beds.
- ❸ Humans adopt and build upon these natural pathways and clearings, creating a connected and inhabited landscape.



Site Plan

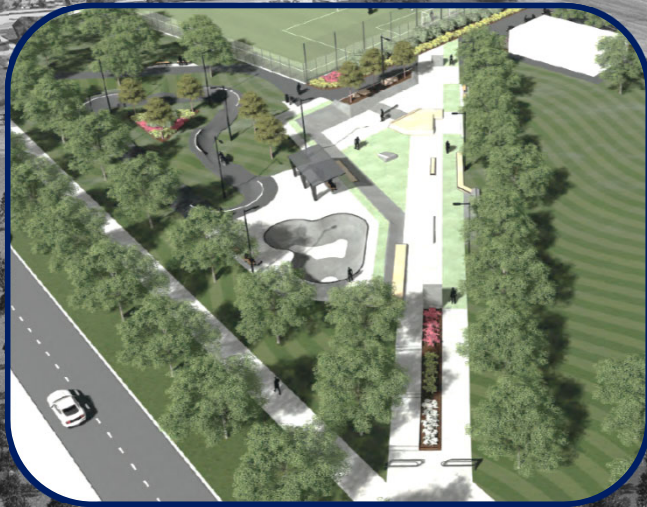
1. Spots Complex
2. Future Program
3. Parking
4. Basketball Courts
5. Tennis Courts
6. Pickleball Courts
7. Playground
8. Skatepark
9. Multi-Use Field
10. Event Plaza
11. District Energy System



Aerial Rendering



Skatepark





Key Features: a demonstration project for the Whitby Green standard including: 30 % canopy coverage within 12 years, 40 EV charging spaces, dark sky compliant lighting, pollinator gardens, habitat restoration and Low Impact Design landscaping



Key Features: Intuitive wayfinding, framed landscape views, advanced pedestrian safety and accessibility, durable exterior materials, opportunities for integrated public art

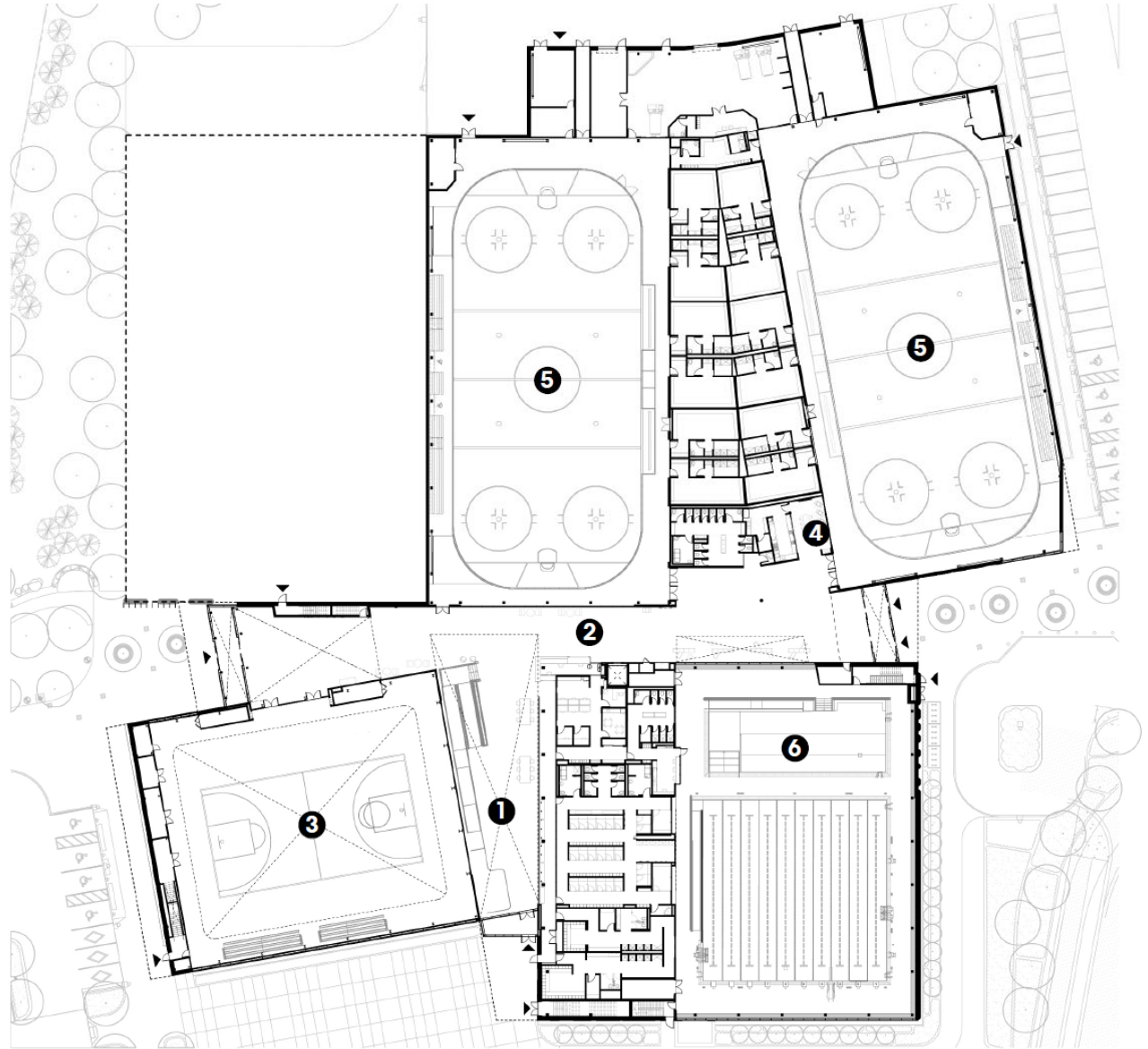
Event Plaza

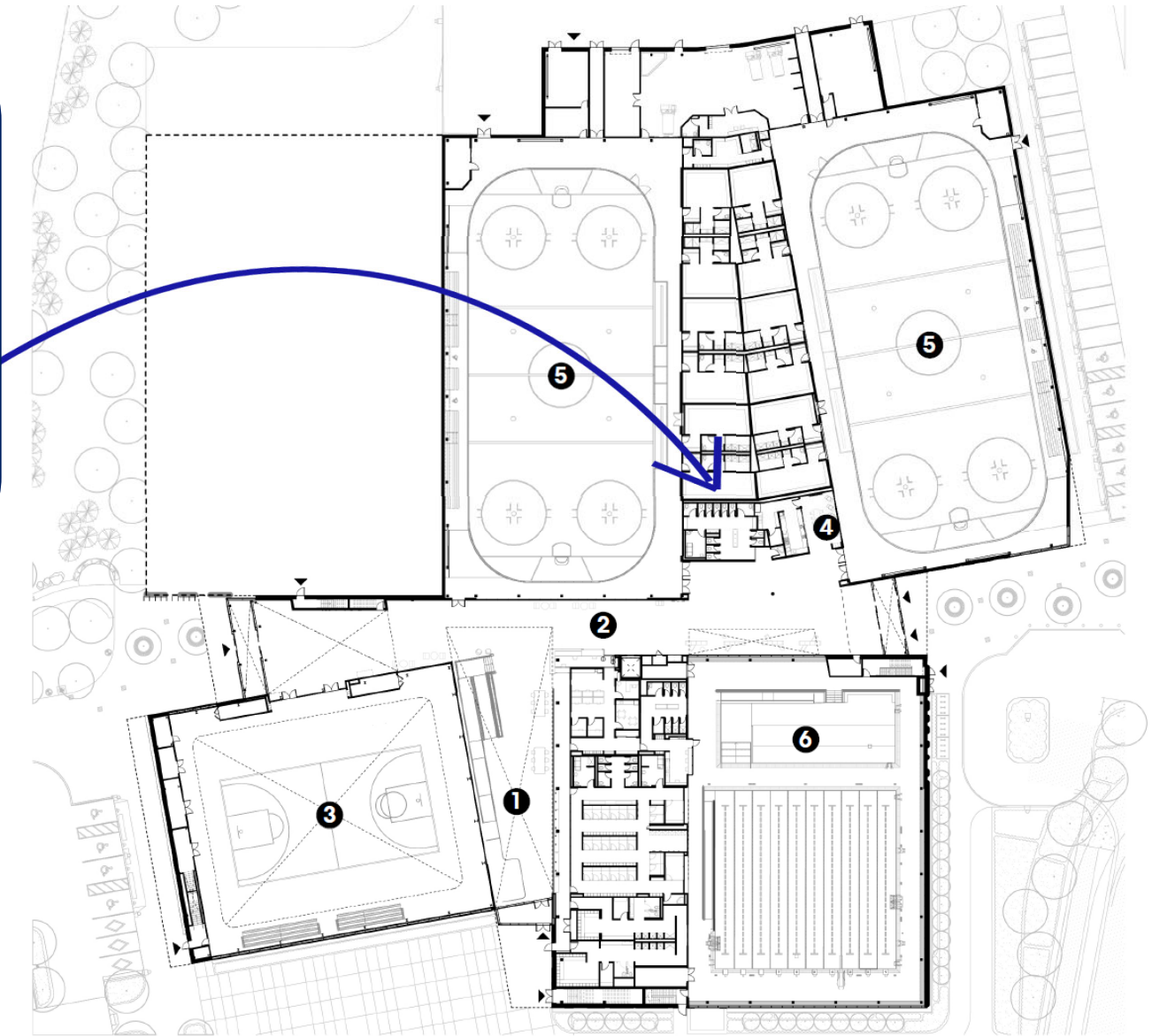
Key Features: Flexible outdoor space for community markets, events, performances and sports tournaments



Ground Level

1. Atrium
2. Reception
3. Gymnasium
4. Concession
5. Arenas
6. Pool Area





Key Plan Features:

Unisex Washrooms

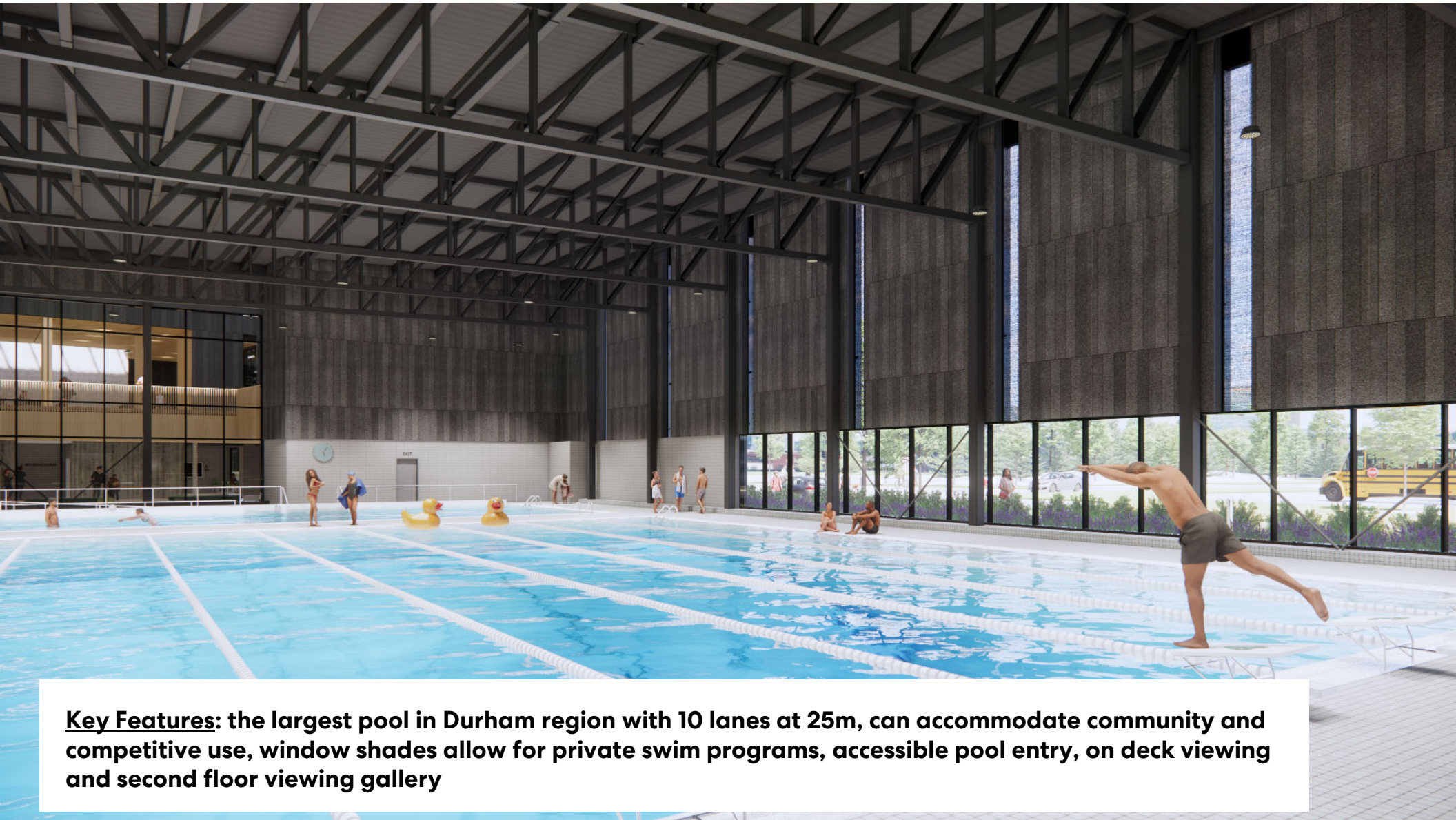
Barrier free change rooms for both arena and aquatics

Universal Aquatic Change Rooms





Key Features: a barrier-free ramp to level 2, high visual contrast in finishes and fittings, accessible service counter, integrated public art; a durable, flexible, naturally lit and acoustically treated space to accommodate a variety of uses





Key Features: All accessible changerooms, sledge hockey integration in both arenas, radiant heating for spectators utilizing waste heat, equally distributed accessible seating, integrated dryland training area, and visual connections to the rest of the facility for passive viewing

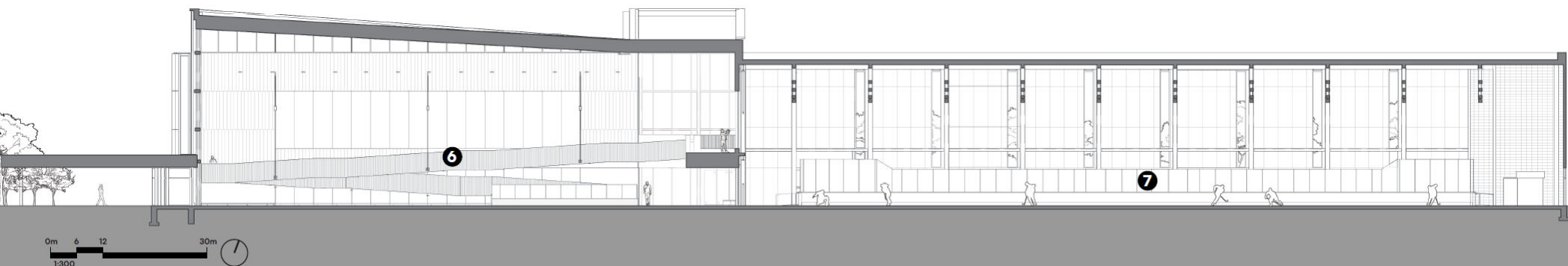


Key Features: integrated barrier-free seating provides a variety of locations for viewing along with companion seating to ensure that all spectators have equal access to the best views of the playing surface



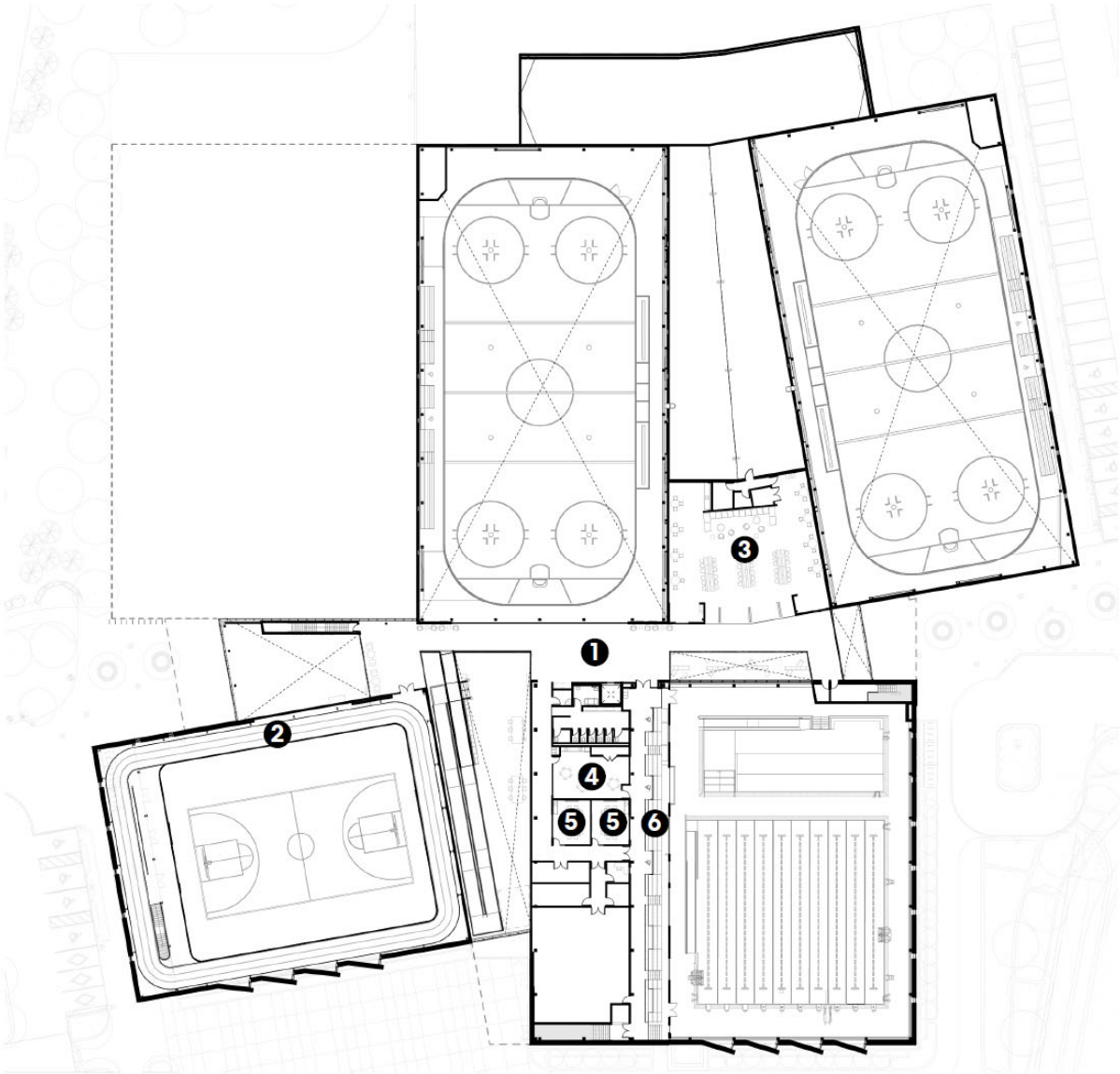
Key Features: visual connection to other spaces in the facility, integrated walking track and stretching area, acoustic attenuation, retractable basketball backstops for flexible use of space, high quality and durable wood sports flooring

1. Gymnasium Track
2. Gymnasium
3. Pool
4. Pool Viewing Area
5. Meeting Room
6. Accessible Ramp
7. Arena



Second Level

- 1. Mezzanine
- 2. Gymnasium Track
- 3. Warm Viewing Area
- 4. Arts Room
- 5. Meeting Room
- 6. Pool Viewing Area





Key Features: program rooms, flexible warm arena viewing and event space, barrier free ramp access



Public Art and Culture

Engagement of STEPS Art Consultant to lead an Indigenous Art process

Preparing for Tender

Contractor Prequalification

- General Contractor Pre-Qualification has yielded strong interest from stable and tested General Contractors

Current Market

- Inflation in the construction industry has reduced from +/- 7.9% to 5.9% annually
- Market is trending toward stabilization
- Construction Cost estimates aim to be the median complaint bid
- Community Consultation, two years of design and coordination

Timing

- Likely the only recreation project of this size tendering in Spring 2023.
- A greenfield site with great access to major highways is an attractive project for contractors
- Bidding in the Spring of 2023 takes advantage of the summer weather for start of construction.

Now is the time to start construction



Thank You